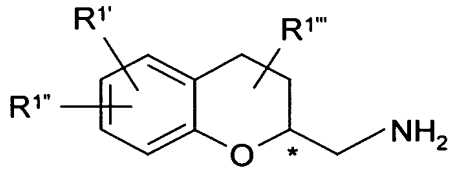
Patent Claims

1. Process for the preparation of chiral 2-aminomethylchroman derivatives of the formula I



I,

in which the carbon atom labelled with the asterisk is in the (R) or (S) configuration with an enantiomeric excess of > 90% and in which

$R^{1'}$, $R^{1''}$, $R^{1'''}$ each, independently of one another, denotes H, Hal, A, OA, COR^2, CH_2R^2, NHA, NA_2 or Ar,

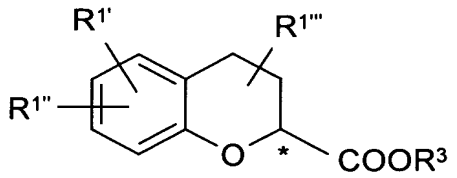
R^2 denotes OA or NA_2,

A denotes unbranched or branched alkyl having 1-10 C atoms, in which one or two CH_2 groups may be replaced by O or S atoms and/or by -CH=CH- groups and/or in addition 1-7 H atoms may be replaced by F,

Ar denotes unsaturated, partially or fully saturated, mono- or polycyclic homo- or heterocyclic system containing the hetero atoms O, N, S which is unsubstituted or mono- or polysubstituted by Hal, A, OA, NA_2 and

Hal denotes F, Cl, Br or I,

characterised in that an enantiomerically pure (R)- or (S)-chroman-2-carboxylic acid ester of the formula IV

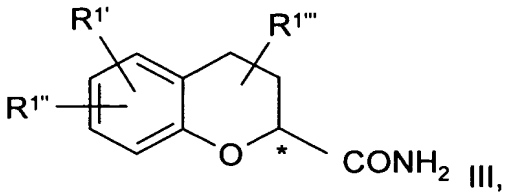


IV,

in which

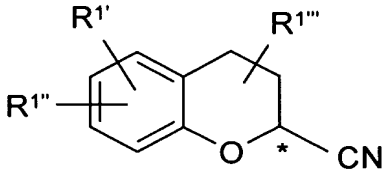
R^3 denotes methyl, ethyl, 1-propyl, isopropyl, 1-butyl, 2-butyl, isobutyl or allyl

is reacted with ammonia to give a carboxamide of the formula III



III,

which is then dehydrated further to a carbonitrile of the formula II



II,

which is then finally reduced to a compound of the formula I.

2. Process according to Claim 1, in which

$R^{1'}$, $R^{1''}$, $R^{1'''}$	each, independently of one another, denotes H, F, A, OA,
A	denotes unbranched or branched alkyl having 1-6 C atoms, and
R^3	denotes methyl or ethyl.

3. Process according to Claim 2, in which

$R^{1'}$, $R^{1''}$, $R^{1'''}$	denote H and
R^3	denotes ethyl.

4. Process according to one or more of Claims 1 to 3, characterised in that the chiral carbon atom labelled with the asterisk in the formulae I to IV is in the (R) configuration.

5. Process according to Claim 4, characterised in that the starting material employed is ethyl (R)-chroman-2-carboxylate.

6. Process according to one or more of Claims 1 to 5, characterised in that the reagent employed for the preparation of the carbonitrile of the for-

mula II from the carboxamide of the formula III is $SOCl_2$, trifluoroacetic anhydride, cyanuric chloride or trimethylsilyl phosphate.

7. Process according to one or more of Claims 1 to 6, characterised in that the reducing agent employed for the preparation of the chromanamine of the formula I from the carbonitrile of the formula II is $LiAlH_4$ or hydrogen gas with heterogeneous catalysis.

8. Intermediate compound of the formula III, consisting of (R)-chroman-2-carboxamide and salts and solvates thereof.

9. Intermediate compound of the formula II, consisting of (R)-chroman-2-carbonitrile and salts and solvates thereof.

10. Process for the preparation of (R)- or (S)-chroman-2-carboxamides of the formula III according to Claim 1 with an enantiomeric excess of > 90%, characterised in that an enantiomerically pure (R)- or (S)-chroman-2-carboxylic acid ester of the formula IV according to Claim 1 is reacted with ammonia to give a chroman-2-carboxamide of the formula III.